WHAT IS CLAIMED IS:

1. A method for providing continuous stable power to a load even if the power from the power source fluctuates or ceases. The method comprises the steps of rotating a flywheel at high speed to store kinetic energy and rotating a synchronous machine at a lower speed.

   Magnetically or hydraulically, couple the flywheel to a generator through an "electrically controlled coupling" that is controlled by a computer.

   Monitoring the power to the load and correcting any power fluctuations to the load continuously by supplying controlled power to the "electrically controlled coupling" that can transfer the right amount of the kinetic energy from the flywheel to the synchronous machine in order to provide accurate and stable power to the load.
2. The method of claim 1 further comprises the step of using the "flywheel motor" to rotate the flywheel at high speed and to rotate the common shaft by the synchronous machine at about half the speed of the flywheel in order to minimize the rotating speed of the bearings.
3. The method of claim 1 further comprises the steps of:

   Sensing electrical utility failure or electrical power fluctuations.

   In case of utility fail, disconnecting the load from utility and supplying the load with electrical power from the synchronous machine that gets its power from the flywheel thru the "electrically controlled coupling", starting an "engine + generator", checking the phases and when the phases coincide and transferring the load to the "engine + generator". When utility power restores, checking the phases and when the phases coincide, transferring the load back to utility and stopping the engine.

   In case that the utility comprises of a local "engine + generator" and the power to the load fluctuates, the "control unit" will sense the fluctuations and will continuously control the "electrically controlled coupling" to transfer kinetic energy from the flywheel to the synchronous machine, thereby providing quality electrical power to the load.

4. The method of claim 1 further comprises the use of an "electrically controlled coupling" that has magnetic coils attached to the shaft that is connected to the synchronous machine and faces radially to the flywheel thru a small air gap. Alternatively, using a hydraulic pump combined with an electro magnetically controlled plunger, between the flywheel shaft and the synchronous machine shaft, to create a controlled coupling for transferring kinetic energy from the flywheel to the synchronous machine.
5. A method of claim 1 further comprises a way to transfer AC power from a stationary coil to a rotating coil, using laminated ferromagnetic sheets inserted radially or axially as two rings, into two opposite housings - the stationary housing and the rotary housing and having a small air gap between the laminations with the stationary coil and the laminations with the rotating coil.
6. A method of claim 1 further comprises the possibility to turn a flywheel at high speed using an electrical motor for normal operation and an engine during utility power failure. The "synchronous machine" rotates as a motor during normal operation, but at a lower speed than the flywheel. An "electrically controlled coupling" exists between the flywheel and the synchronous machine and another "electrically controlled coupling" exists between the flywheel and an engine. In case that the utility power to the load fluctuates or ceases, the "electrically controlled coupling" between the flywheel and the synchronous machine will transfer kinetic energy from the flywheel to the "synchronous machine", to maintain quality power to the load. Thru the "electrically controlled coupling" between the flywheel and the engine, the engine will transfer continuous power to the flywheel. The engine can use energy from a variety of energy sources such as wind, water, geothermal, gas and diesel.